

Fig. 1

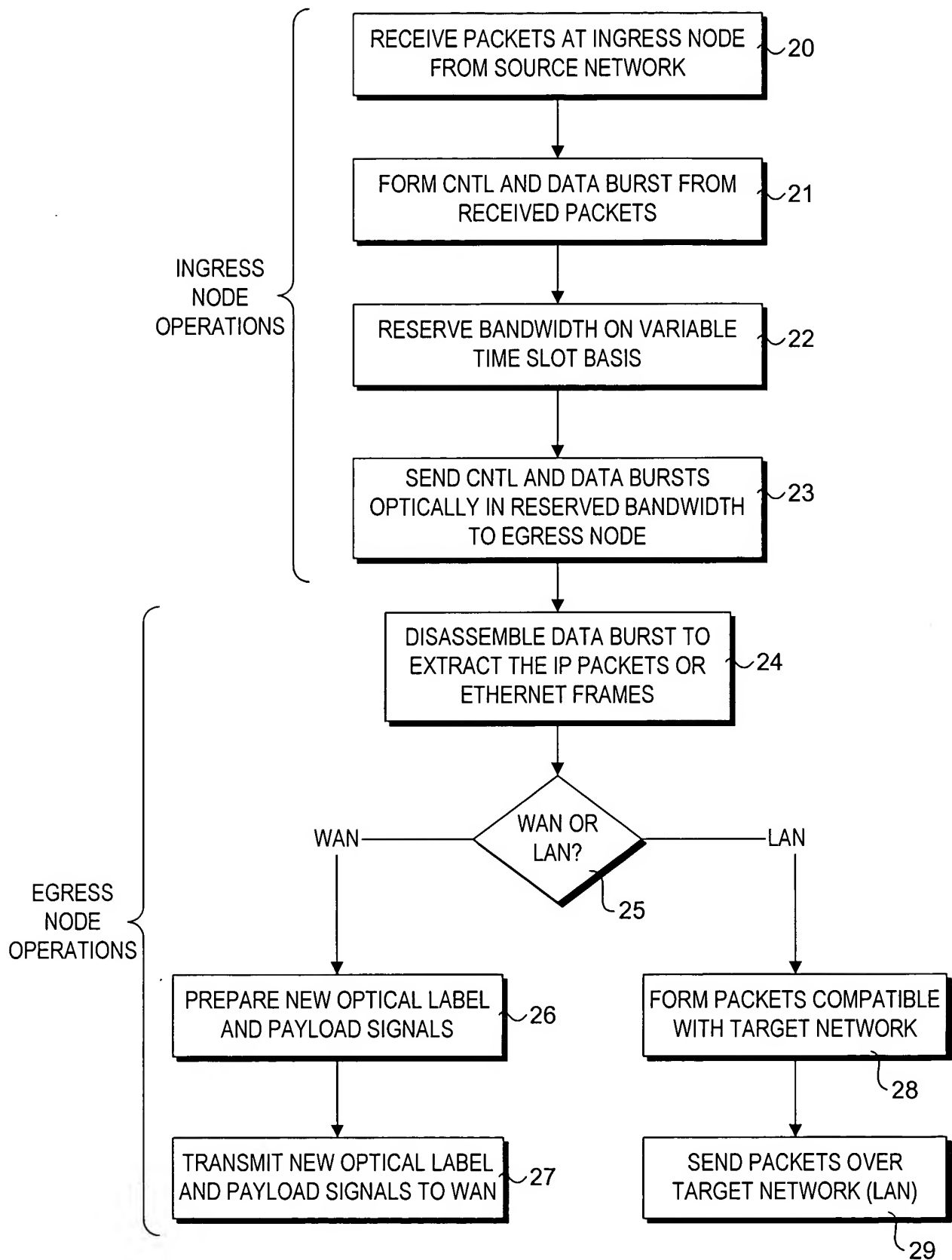


Fig. 2

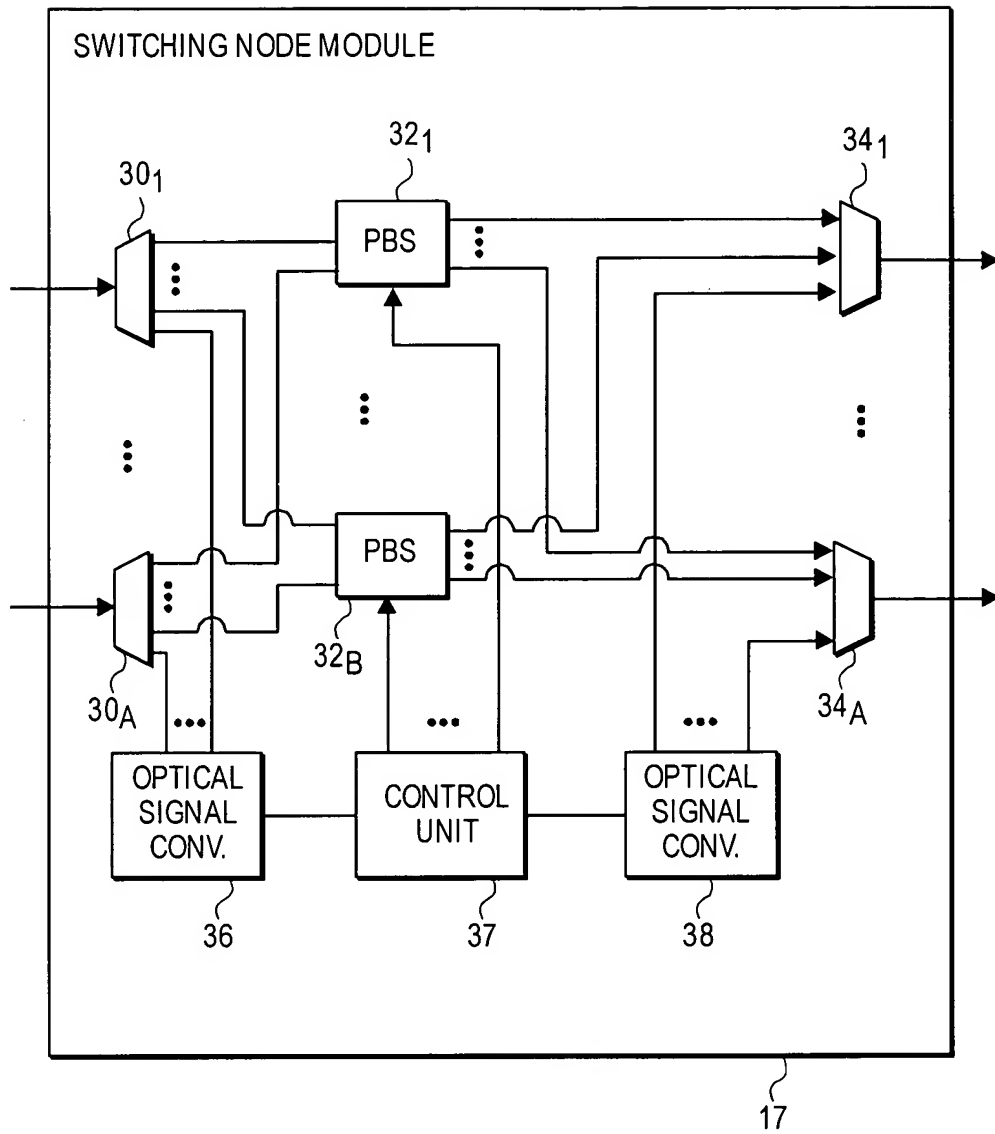


Fig. 3

GMPLS BASED ARCHITECTURE FOR PBS

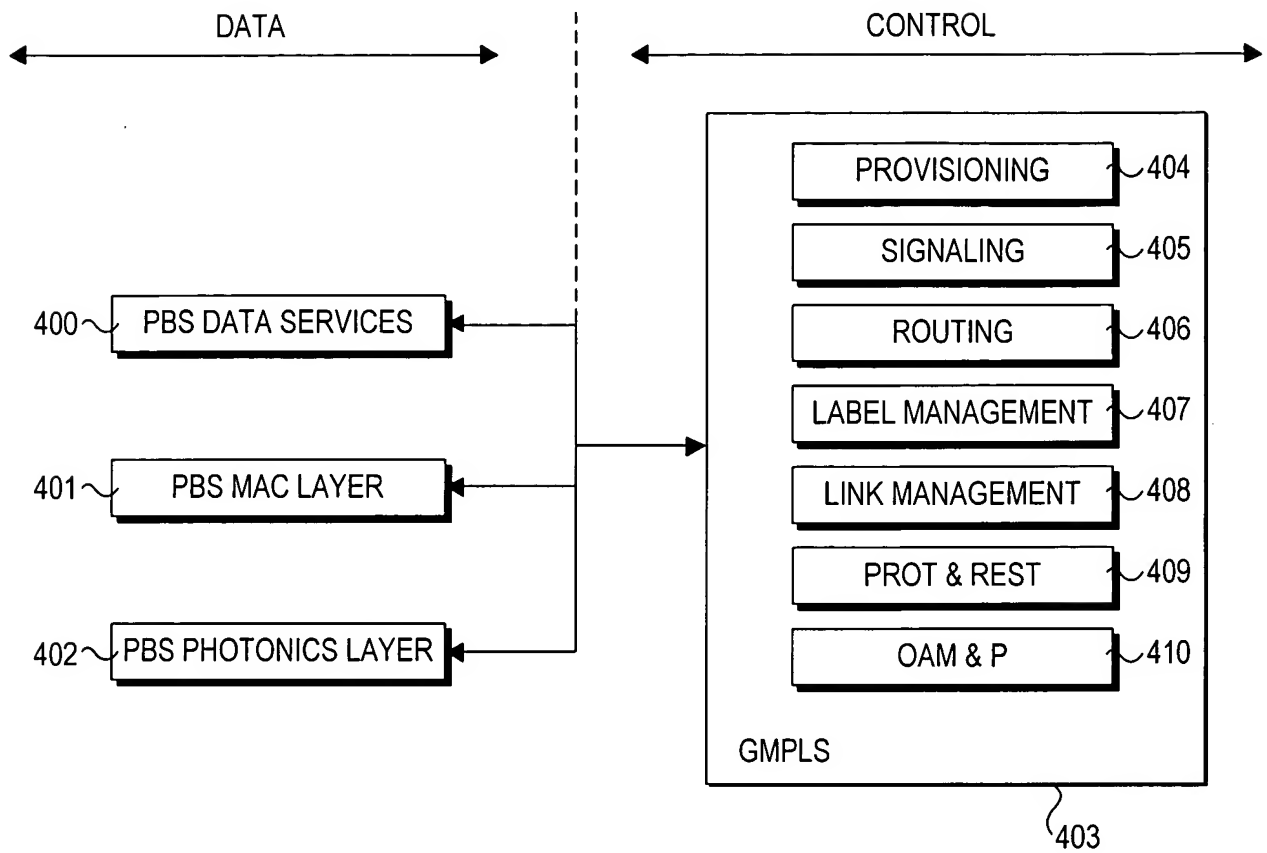


Fig. 4

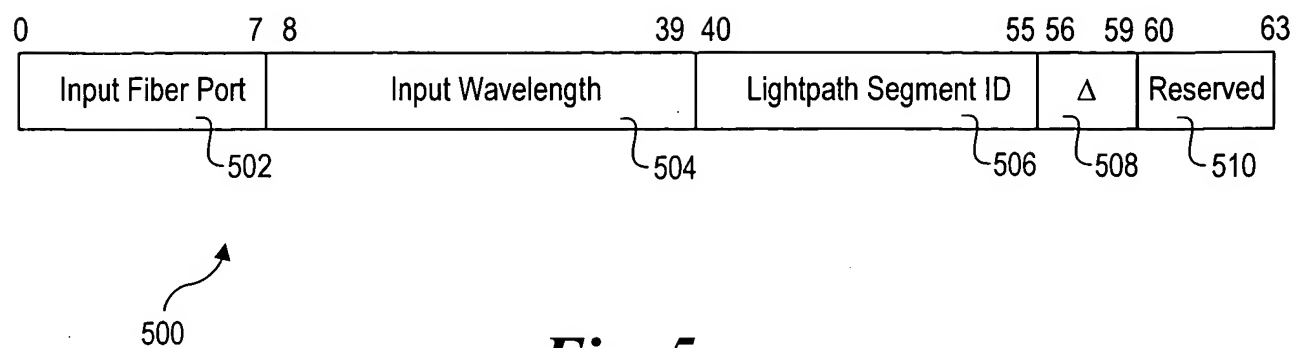


Fig. 5

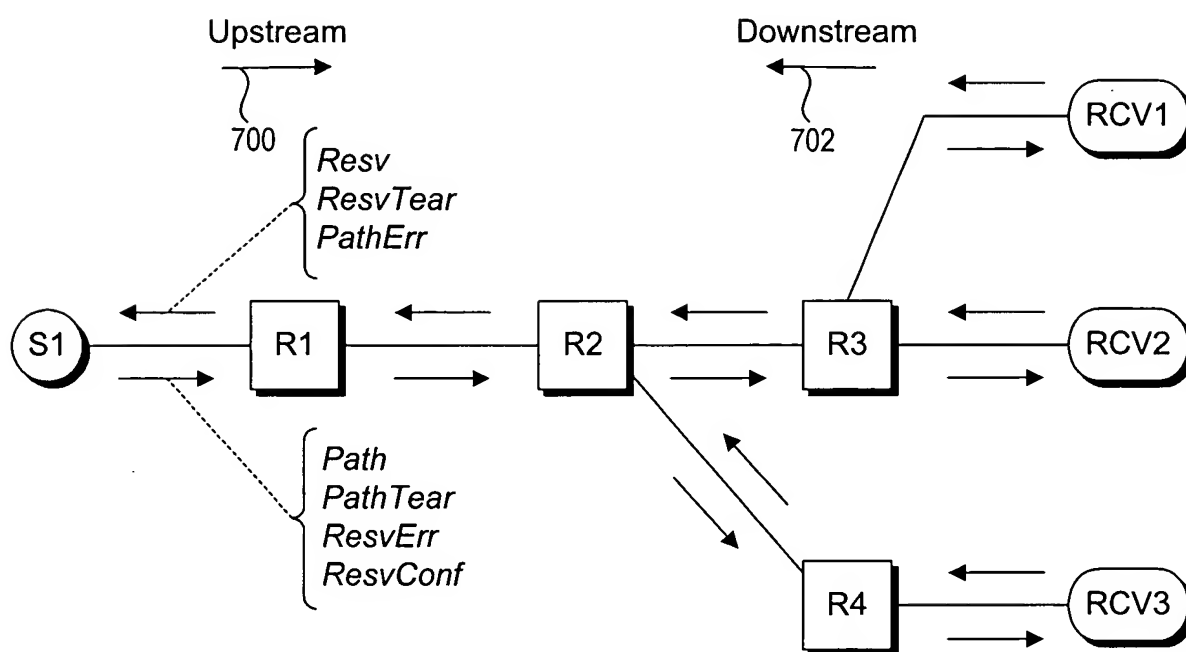
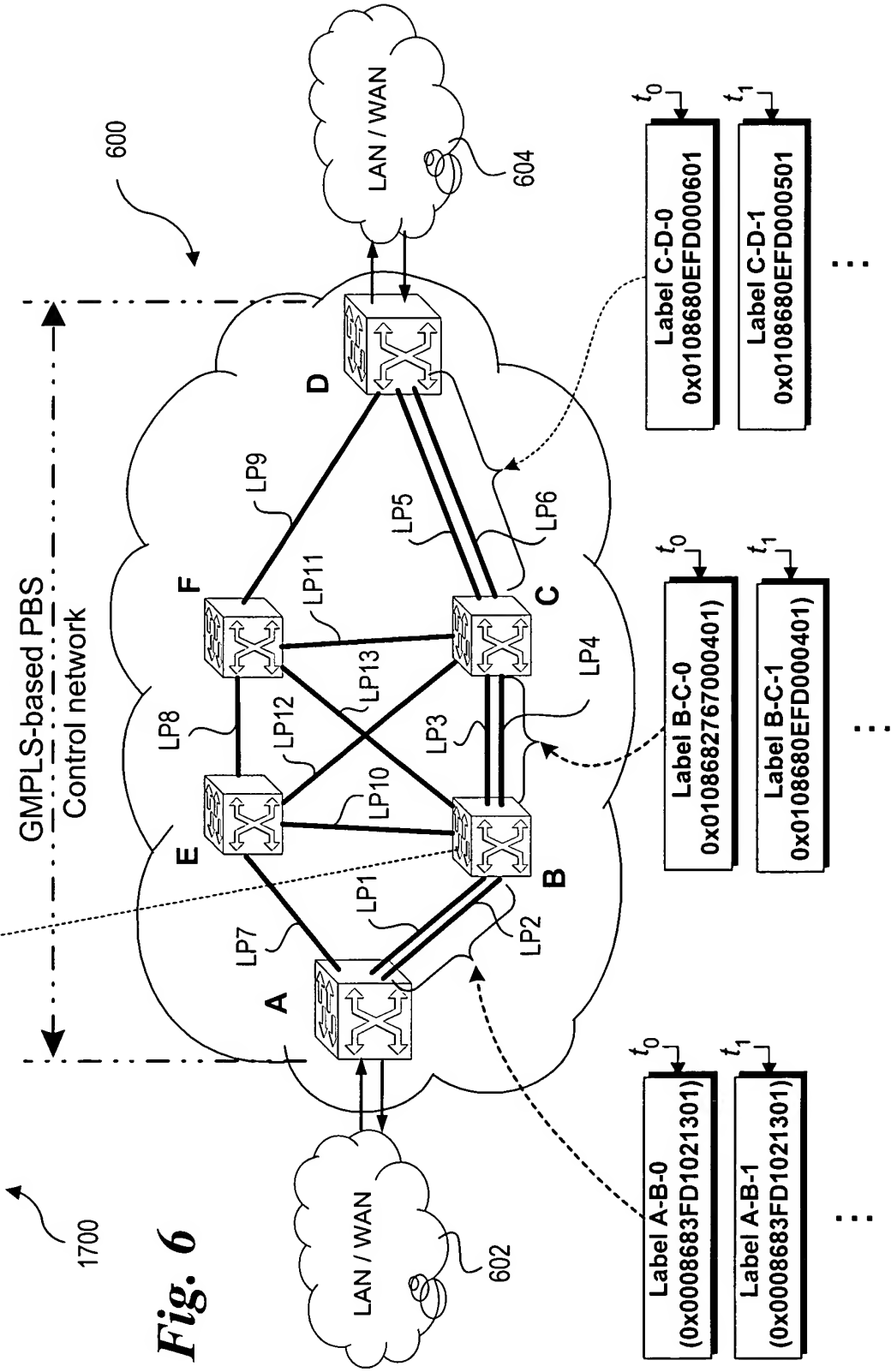


Fig. 7

RESERVATION TABLE										
Key (Burst ID)	Input Fiber Port	Input Wavelength	Input Lightpath Segment ID	Output Fiber Port	Output Wavelength	Output Lightpath Segment ID	Start Time	End Time	Bandwidth %	Status
... 1005	1	196.4	1004	5	196.4	1016	12:00:000	12:00:001	20	1
...



```

<Path Message> ::=
    <Common Header> ~ 802
    [ <INTEGRITY> ] ~ 804
    <UNI_IPv4_SESSION> ~ 806
    <IPv4_IF_ID_RSVP_HOP> ~ 808
    <TIME_VALUES> ~ 810
    [ <EXPLICIT_ROUTE> ] ~ 811
    <GENERALIZED_PBS_LABEL_REQUEST> ~ 812
    [ <LABEL_SET> ... ] ~ 814
    [ <ADMIN_STATUS> ] ~ 816
    <DESTINATION_PBS_ADDRESS> ~ 818
    <SOURCE_PBS_ADDRESS> ~ 820
    [ <POLICY_DATA> ... ] ~ 822
    <sender descriptor> ~ 824

```

or

Fig. 8a

800

Sender descriptor for a unidirectional PBS light-path:

```

▶ <sender descriptor> ::=
    <LSP_TUNNEL_IPv4_SENDER_TEMPLATE> ~ 826
    <PBS_SENDER_TSPEC> ~ 828

```

Fig. 8b

824A

Format of the sender descriptor for a bi-directional PBS light-path

```

▶ <sender descriptor> ::=
    <LSP_TUNNEL_IPv4_SENDER_TEMPLATE> ~ 826
    <PBS_SENDER_TSPEC> ~ 828
    <UPSTREAM_LABEL> ~ 830

```

Fig. 8c

824B

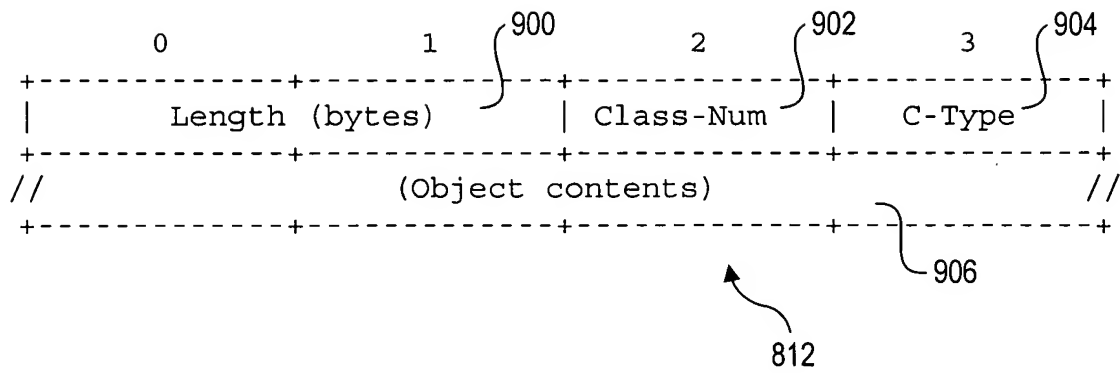


Fig. 9

```

<Resv Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPV4_IF_ID_RSVP_HOP> ~ 808
  <TIME_VALUES> ~ 810
  [ <IPV4_RESV_CONFIRM> ] ~ 1004
  [ <ADMIN_STATUS> ] ~ 816
  [ <POLICY_DATA> ... ] ~ 822
  <STYLE> ~ 1006
  <FF flow descriptor> ~ 1008

```

1000

Fig. 10a

```

<FF flow descriptor> ::=
  <PBS_FLOWSPEC> ~ 1010
  <LSP_TUNNEL_IPv4_FILTER_SPEC> ~ 1012
  <GENERALIZED_PBS_LABEL> ~ 1014

```

1008

Fig. 10b


```

<PathTear Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPv4_IF_ID_RSVP_HOP> ~ 808
  [ <ADMIN_STATUS> ] ~ 816
  <sender descriptor> ~ 824

```

Fig. 11

1100

```

<ResvTear Message> ::=
  <Common Header> ~ 802
  [ <INTEGRITY> ] ~ 804
  <UNI_IPv4_SESSION> ~ 806
  <IPv4_IF_ID_RSVP_HOP> ~ 808
  [ <ADMIN_STATUS> ] ~ 816
  <STYLE> ~ 1006
  <FF flow descriptor > ~ 1008

```

Fig. 12

1200

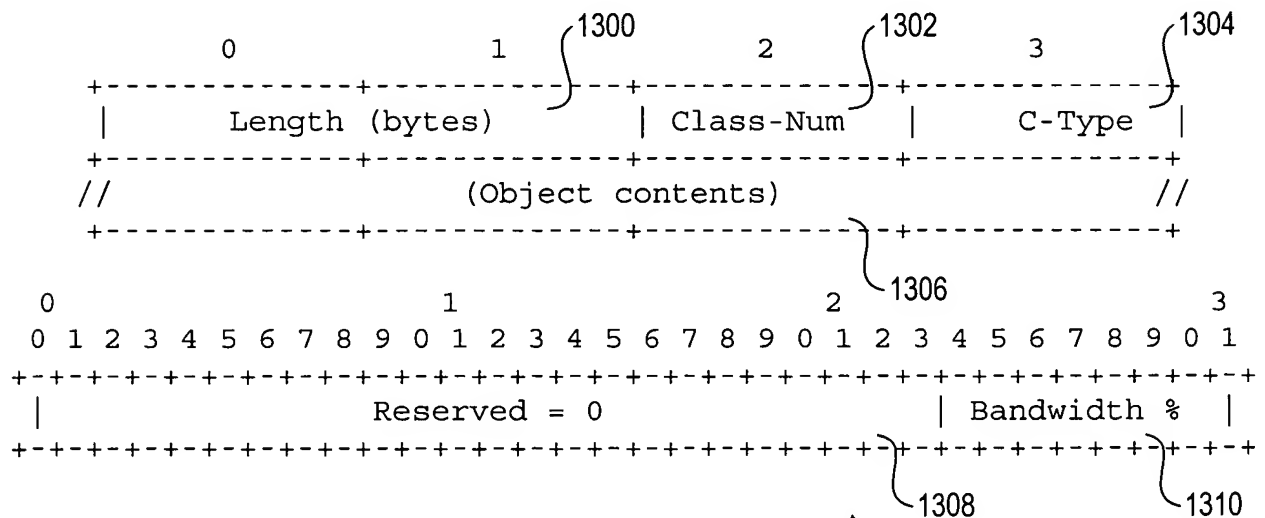


Fig. 13

828, 1008

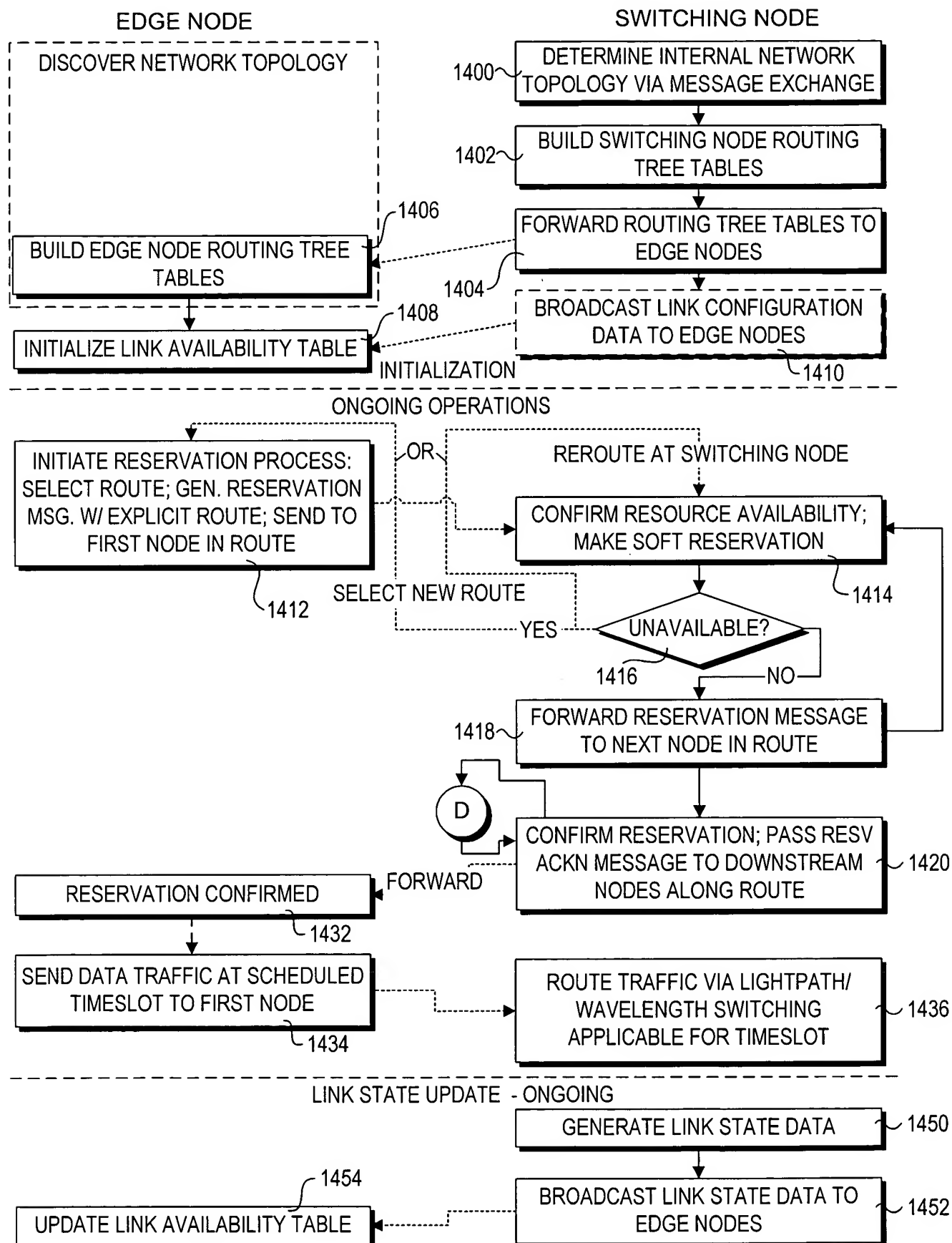


Fig. 14a

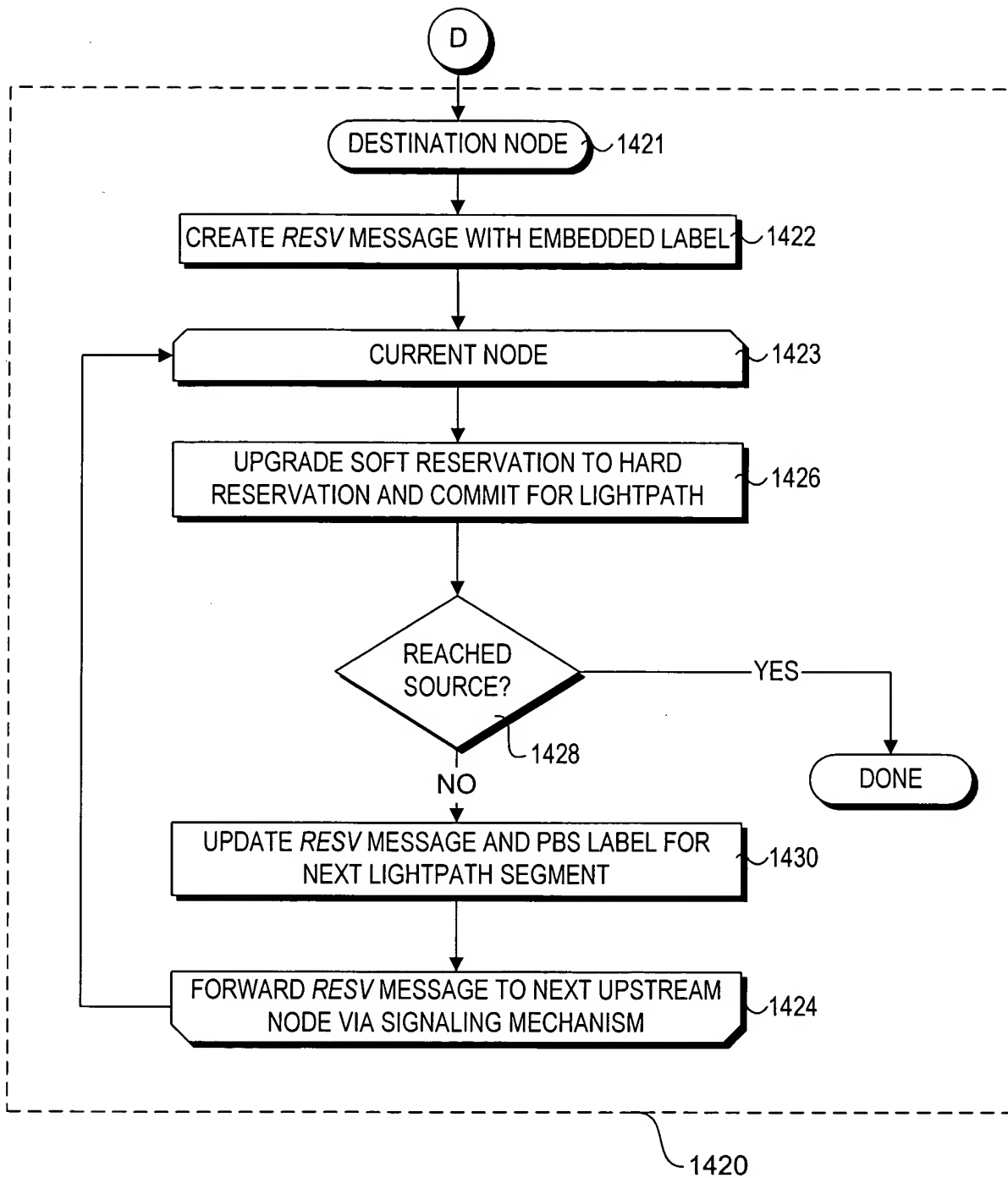


Fig. 14b

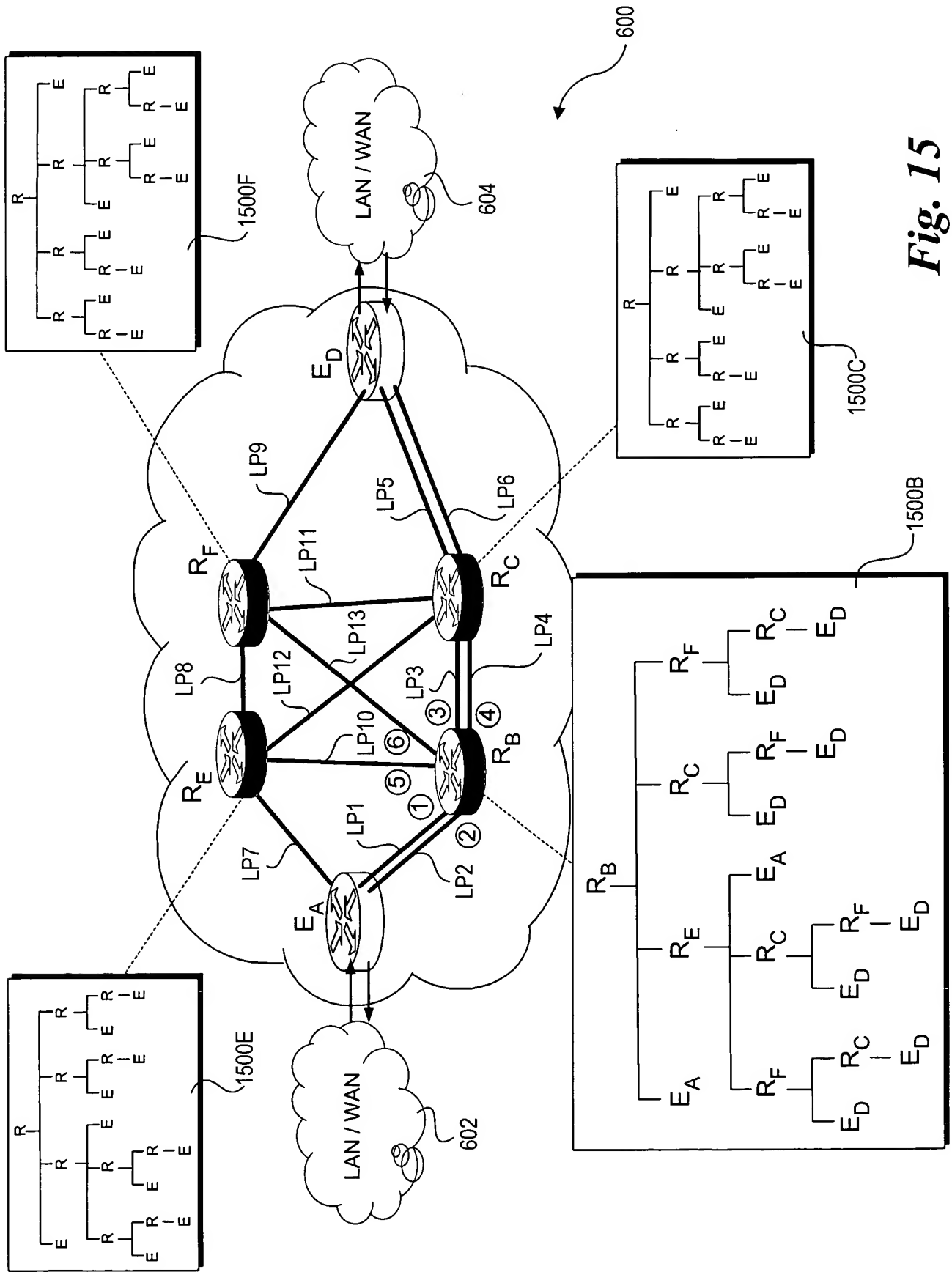
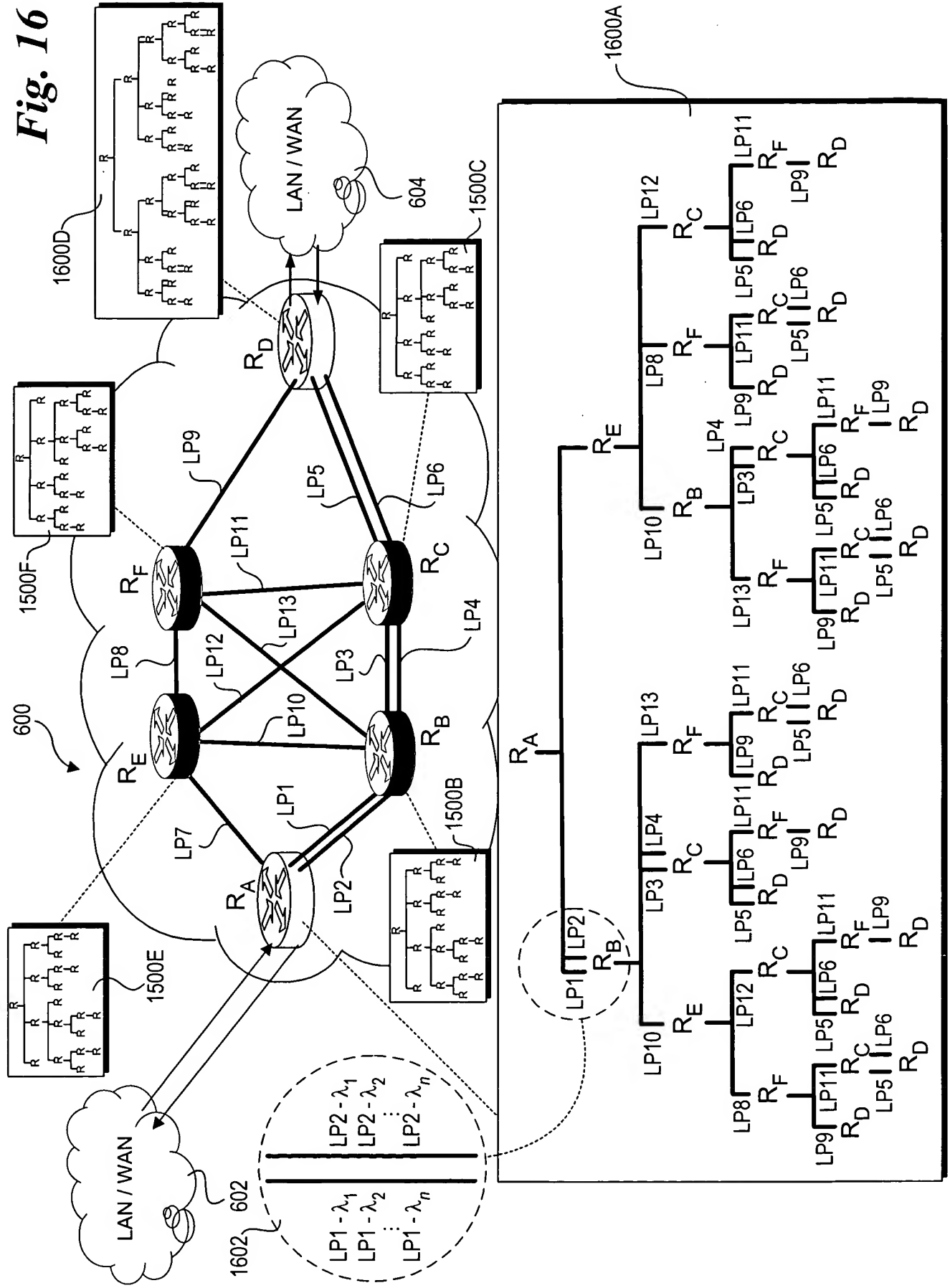


Fig. 15

Fig. 16



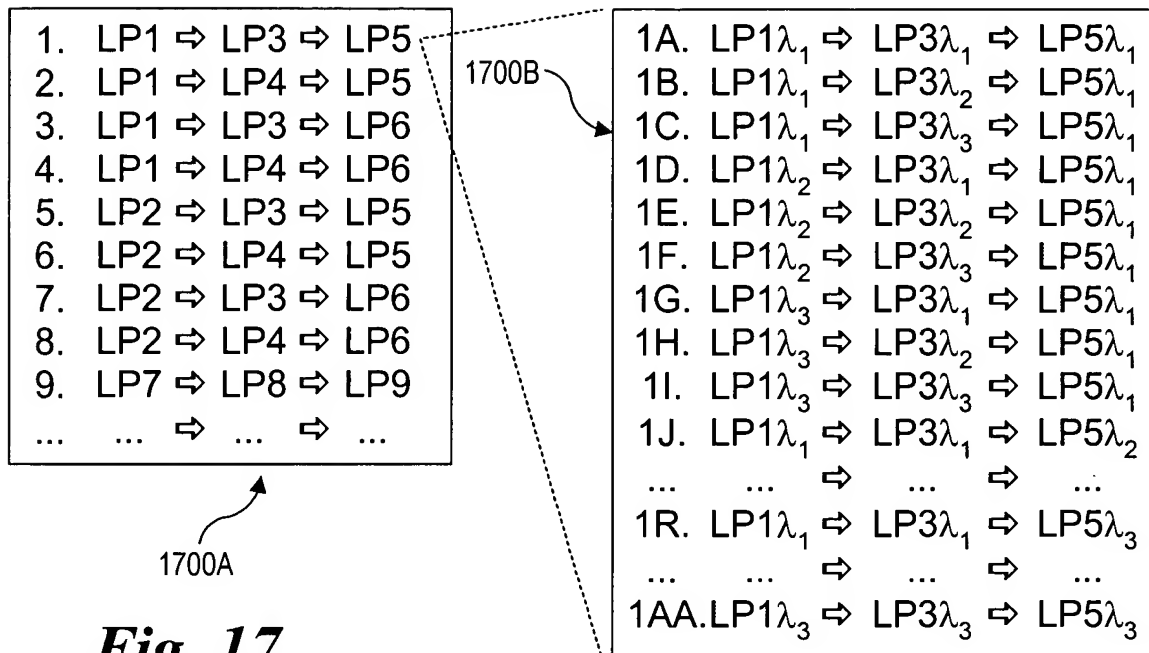


Fig. 17

Lightpath Segment ID	Wavelength	Start Time	End Time	Bandwidth %	Link Status
LP3	195.6	12:00:000	12:00:001	30	1
LP4	197.2	12:00:000	12:00:003	30	1
LP4	197.2	12:00:001	12:00:002	35	1
LP2	196.4	12:00:002	12:00:003	15	1
LP13	195.6	12:00:002	12:00:004	40	1
LP3	196.4	12:00:002	12:00:003	10	1
LP1	197.2	12:00:004	12:00:006	25	1
LP3	195.6	12:00:004	12:00:007	25	1
LP2	196.4	12:00:005	12:00:006	20	1
LP1	195.6	12:00:005	12:00:007	30	1

1800

Fig. 18

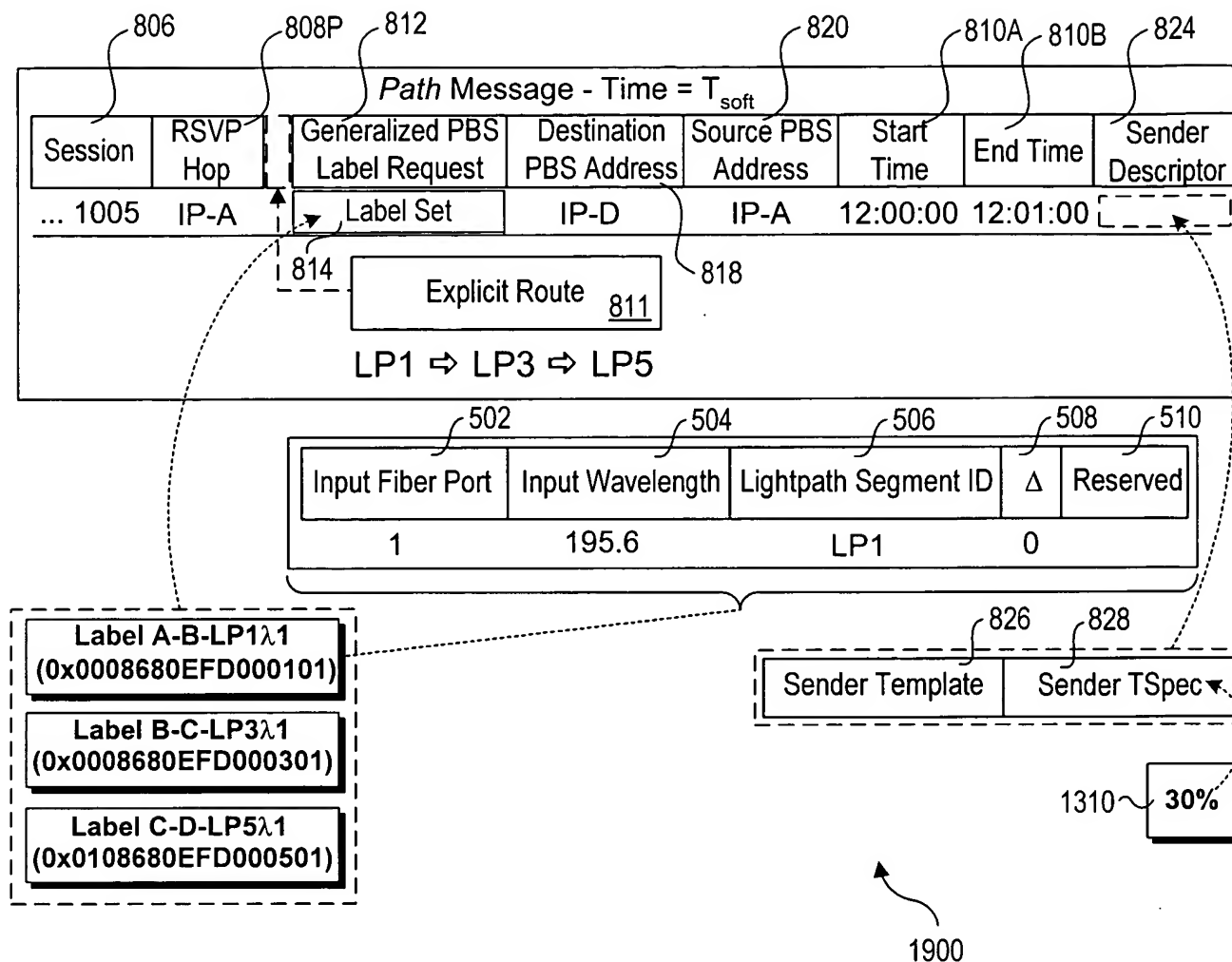


Fig. 19

RESERVATION TABLE																					
2002		2004		2006		2008		2010		2012		2014		2016		2018		2020		2022	
Key (Sess ID)	Input Fiber Port	Input Wavelength	Input Lightpath Segment ID	Output Fiber Port	Output Wavelength	Output Lightpath Segment ID	Start Time	End Time	Bandwidth %	Status											
... 1005	1	195.6	LP1	5	195.6	LP3	12:00:00	12:01:00	30	1											
... 1027	1	197.2	LP1	5	197.2	LP4	12:00:00	12:03:00	30	1											
... 1045	2	197.2	LP2	6	197.2	LP4	12:01:00	12:02:00	35	1											
... 1115	3	196.4	LP3	4	196.4	LP2	12:02:00	12:03:00	15	1											
... 1146	1	195.6	LP1	5	195.6	LP13	12:02:00	12:04:00	40	1											
... 1178	2	196.4	LP2	6	196.4	LP3	12:02:00	12:03:00	10	1											
... 1222	6	197.2	LP4	1	197.2	LP1	12:04:00	12:06:00	25	1											
... 1256	4	195.6	LP3	3	195.6	LP3	12:04:00	12:07:00	25	1											
... 1313	2	196.4	LP2	2	196.4	LP2	12:05:00	12:06:00	20	0											
... 1345	5	195.6	LP13	1	195.6	LP1	12:05:00	12:07:00	30	0											

2000

Fig. 20

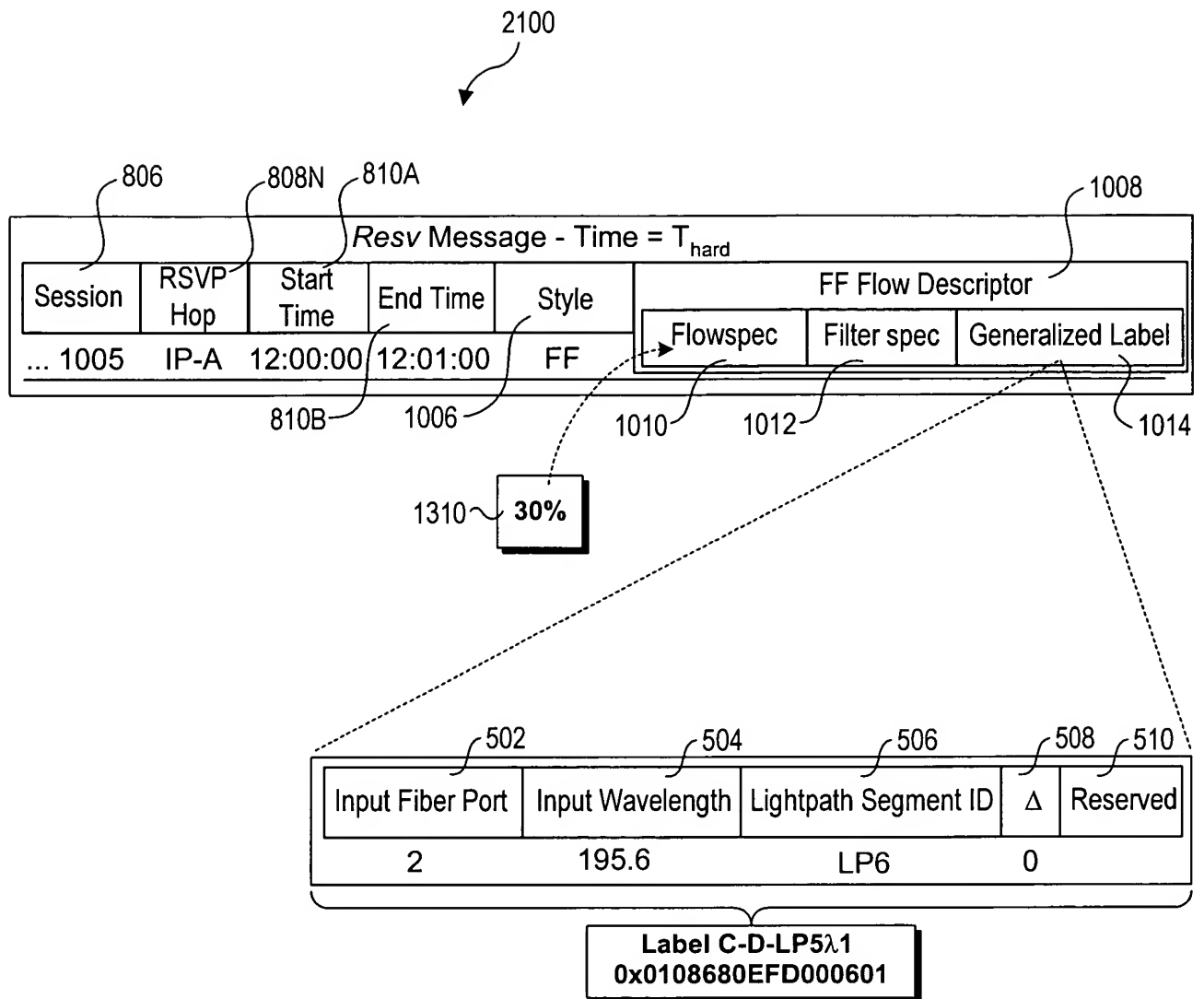


Fig. 21

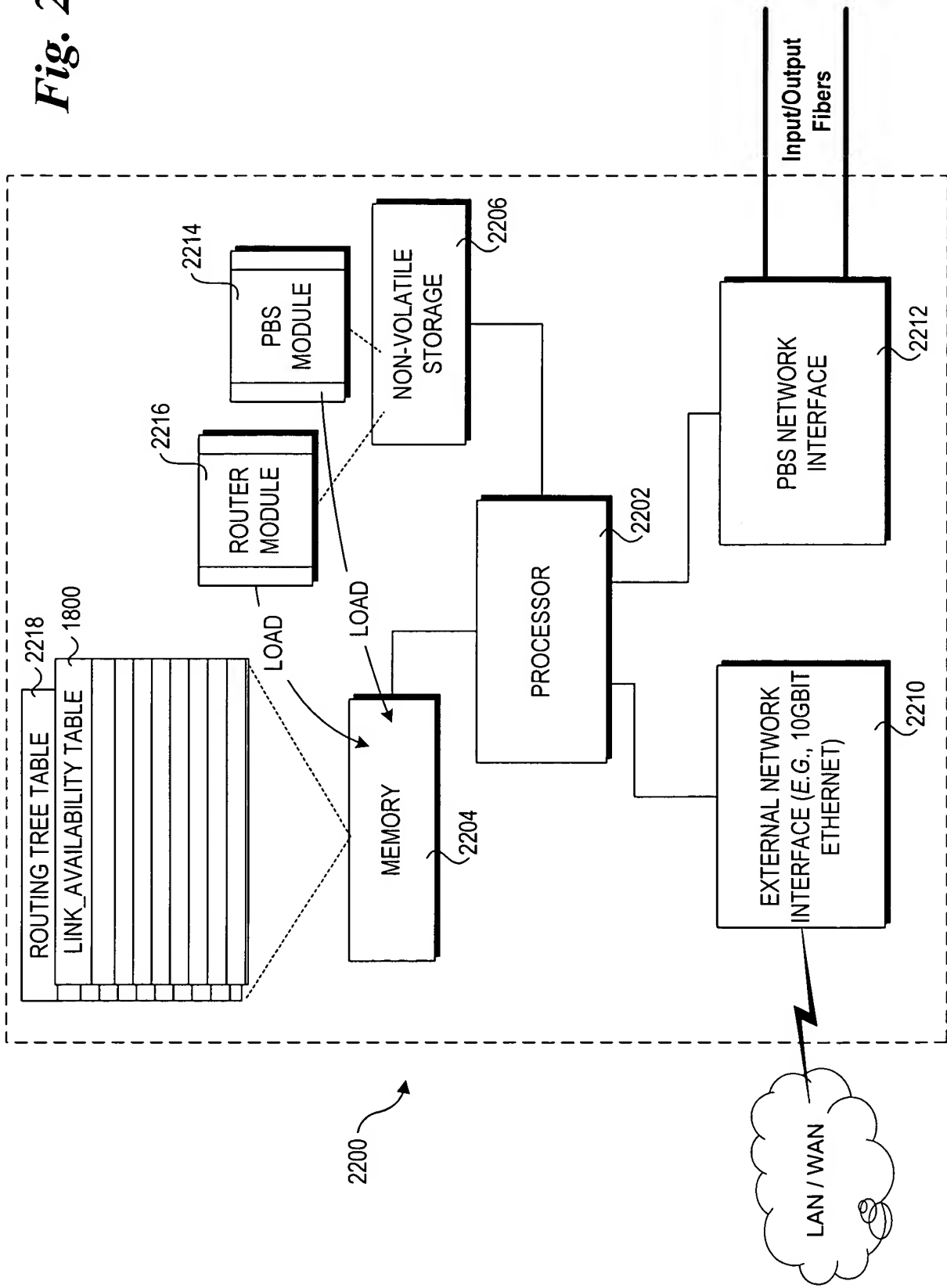


Fig. 22